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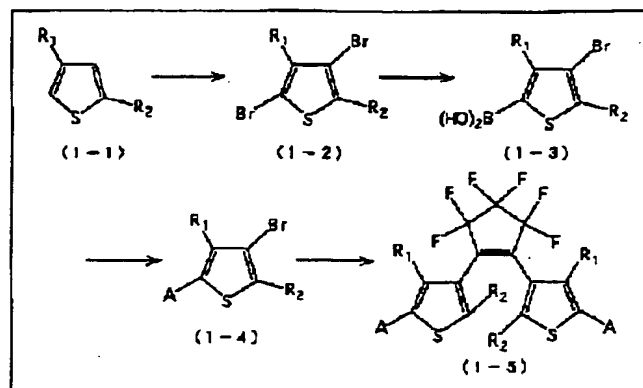
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TITLE : PHOTOCROMIC MATERIAL AND OPTICAL RECORDING MEDIUM



ABSTRACT : PROBLEM TO BE SOLVED: To obtain a photochromic material that can be synthesized by relatively few reactions in relatively high yields and can give a ring-opening product having an absorption band reaching the vicinity of the visible region by using a diarylethene compound.

SOLUTION: The diarylethene compound is represented by formula 1-5 (wherein R₁ and R₂ are each H, an alkyl, or an alkoxy; and A is a fused polycyclic aromatic group or a group derived by the removal of one H atom from a polyphenyl group). When a photochromic material is utilized in an optical recording medium, it needs to exhibit good repetition durability and thermal irreversibility in the recording, deletion, and reproduction of information. The diarylethene compound, especially, a diarylethene compound composed of a perfluorocyclopentene ring and two aryl groups bonded thereto satisfies the above requirements, is relatively simple in the route and step of synthesizing the material, and can be synthesized in high yields. The objective diarylethene compound can be obtained through a route of synthesis including steps of 1-1 to 1-5.

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